Kleysen transport

FleetSmart

PROFILES

KLEYSEN TRANSPORT

Committed to Innovation and Fuel Efficiency

Kleysen Transport is using state-of-the-art technology and a management approach that combines careful vehicle spec'ing, regular vehicle maintenance, driver training and data analysis to improve its fleet operations. The end result has been a 20 to 30 per cent improvement in fuel economy over the past decade.

About the company

Winnipeg-based Kleysen Transport offers regular, expedited, contract and dedicated transportation services using dry van, temperature controlled, flat-deck and bulk equipment. The company maintains a fleet of approximately 450 tractors and 1 000 trailers and serves customers throughout North America.

Kleysen has also designed and built specialized material handling and trailing equipment to serve the needs of specific customers. In addition, the company provides logistics services, such as just-in-time scheduling and rolling inventories that can be diverted on-route.

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Fuel efficiency through vehicle spec'ing

Fuel costs represent as much as 30 per cent of Kleysen's total operating expenses, depending on the type of operation. Minimizing fuel consumption is therefore an important part of the company's cost control strategy.

"Most fuel-savings opportunities are in vehicle spec'ing," says Neill Farnell, Kleysen's Director of Maintenance. "After that, what you have to do is maintain the vehicles properly and train the drivers properly."

Kleysen uses electronic engines in all its tractors. The electronic control module (ECM) stores information on such factors as distance travelled and fuel consumed, and performs diagnostic measurements that make it easier to service the engine. A small data screen on the dash allows drivers to continuously monitor fuel consumption and also alerts drivers when an engine problem arises. This technology allows Kleysen to reduce troubleshooting costs and keep its trucks on the road.

Kleysen uses analysis software to produce reports on an individual trip or on a monthly basis. These reports include items such as average speed, fuel consumed and the amount of time at idle or over the speed limit. The software also records engine operating times at various speed combinations to determine the amount of time spent in cruise control, where maximum fuel economy is achieved.

The electronic engines are programmed to provide 370 horsepower on the pedal and 430 horsepower in cruise control. Vehicle speeds are limited to 94 kilometres per hour on the pedal and 90 kilometres per hour in cruise control.

Statistical process control

Kleysen uses the principles of statistical process control (SPC) to improve its understanding of fuel consumption on specific runs. The company has compiled long-term data on each of its regular runs to establish an average fuel consumption for each run. Kleysen has also established a range of variations from this average that are considered to be normal.

As long as actual fuel consumption is within the "normal" range of variations, no action is taken. However, when fuel consumption exceeds the normal variation, the company takes steps to identify and correct the problem. This involves checking the engine, tire pressures, maintenance schedule, driver's long-term record and other factors. At each stage of this diagnostic process, the principles of SPC are applied.

In order to limit major maintenance problems, Kleysen frequently turns over its fleet. All tractors are less than two years old, and the average age of the trailer fleet is three years. A maintenance software program is used to schedule routine maintenance, which is performed according to manufacturers' specifications. On average, each tractor's oil, filter and transmission fluid are changed every 24 000 kilometres.

Driver training

New drivers are given a two-day program of classroom instruction followed by up to two days of on-the-road training. The classroom course introduces drivers to the company, its employee benefits plan and its commitment to customer service and continuous improvement. Drivers' regulatory responsibilities are also explained, as are border-crossing requirements.

An important objective of the training program is to provide tips on fuel-efficient driving, using Natural Resources Canada's ProTrucker materials. Manuals and videos are used to instruct drivers on proper speed control, road management, starting, progressive shifting and idling control. Drivers are also instructed on safety and legal issues, with particular emphasis on proper brake adjustment and operation of automatic slack adjusters. The company reviews fuel consumption figures monthly to maintain the focus on proper driving techniques.

For example, if the measures of engine performance do not fall outside the normal range of variations, no changes are made to the engine.

"Our commitment to statistical process control has enabled us to avoid wasting countless hours trying to figure out what was wrong with one or another of our engines," says Dave Klassen, Director of Operations for Kleysen Transport.

The company's understanding of SPC also allows it to test manufacturers' claims in order to identify products that can genuinely improve fuel economy. For example, Kleysen has used SPC techniques to test the impact of fuel additives on fuel consumption.

"We have established a six per cent variance around any miles per gallon reading," reports Mr. Klassen. "An additive has to add more than six per cent to fuel economy in order for us to determine it works. None has, so far."

payback

Satellite communication supports operations management

Kleysen has invested approximately $2 million to install satellite technology in about 380 tractors that provide common carrier, line-haul services (the remaining tractors are used mostly for contract services). By providing a direct link between on-board computer terminals and Kleysen's mainframe, the system can be used to locate any of the company's tractors and provide direct two-way communication between the dispatch office and the drivers.

Prior to installation of the satellite system, drivers phoned the dispatch office at regular intervals. The satellite system has reduced the telephone calls and has helped reduce empty-miles travelled.

For more information on fleet energy-saving opportunities, please write to

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